AMENDMENTS TO THE CLAIMS

Please cancel Claims 1 to 25.

Please add new claims 26 to 56.

Claims 1 to 25 (Cancelled)

- 26. (New) An isolated nucleic acid molecule comprising a polynucleotide sequence selected from the group consisting of:
- (a) an isolated polynucleotide encoding a polypeptide comprising amino acids 1 to 665 of SEQ ID NO:109;
- (b) an isolated polynucleotide encoding a polypeptide comprising amino acids 2 to 665 of SEQ ID NO:109;
- (c) an isolated polynucleotide encoding a polypeptide comprising amino acids 1 to 302 of SEQ ID NO:109;
- (d) an isolated polynucleotide encoding a polypeptide comprising amino acids 2 to 302 of SEQ ID NO:109;
- (e) an isolated polynucleotide encoding a polypeptide comprising at least 473 contiguous amino acids of SEQ ID NO:109, wherein said polypeptide has phosphatase activity; and
- (f) an isolated polynucleotide which represents the complementary sequence of (a), (b), (c), (d), or (e).
- 27. (New) The isolated nucleic acid molecule of claim 26, wherein said polynucleotide is (a).
- 28. (New) The isolated nucleic acid molecule of claim 27, wherein said polynucleotide comprises of nucleotides 538 to 2532 of SEQ ID NO:108.
- 29. (New) The isolated nucleic acid molecule of claim 26, wherein said polynucleotide is (b).
- 30. (New) The isolated nucleic acid molecule of claim 29, wherein said polynucleotide comprises nucleotides 541 to 2532 of SEQ ID NO:108.
- 31. (New) The isolated nucleic acid molecule of claim 26, wherein said polynucleotide is (c).

- 32. (New) The isolated nucleic acid molecule of claim 26, wherein said polynucleotide comprises of nucleotides 538 to 1443 of SEO ID NO:108.
- 33. (New) The isolated nucleic acid molecule of claim 26, wherein said polynucleotide is (d).
- 34. (New) The isolated nucleic acid molecule of claim 33, wherein said polynucleotide comprises nucleotides 541 to 1443 of SEQ ID NO:108.
- 35. (New) The isolated nucleic acid molecule of claim 26, wherein said polynucleotide is (e).
- 36. (New) The isolated nucleic acid molecule of claim 35, wherein said polynucleotide comprises at least 1419 contiguous nucleotides of SEQ ID NO:108.
- 37. (New) The isolated nucleic acid molecule of claim 26, wherein said polynucleotide is (f).
- 38. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 26.
 - 39. (New) A recombinant host cell comprising the vector sequences of claim 38.
 - 40. (New) A method of making an isolated polypeptide comprising:
- (a) culturing the recombinant host cell of claim 39 under conditions such that said polypeptide is expressed; and
 - (b) recovering said polypeptide.
- 41. (New) The isolated polynucleotide of claim 26 wherein said nucleic acid sequence further comprises a heterologous nucleic acid sequence.
- 42. (New) The isolated polynucleotide of claim 41 wherein said heterologous nucleic acid sequence encodes a heterologous polypeptide.
- 43. (New) The isolated polynucleotide of claim 42 wherein said heterologous polypeptide is the Fc domain of immunoglobulin.
- 44. (New) An isolated nucleic acid molecule comprising a polynucleotide selected from the group consisting of:
- (a) a polynucleotide comprising the cDNA clone contained in plasmid RET31 in ATCC Deposit No. PTA-3434; and
- (b) a polynucleotide comprising the cDNA clone contained in plasmid BMY_HPP5 in ATCC Deposit No. PTA-2966.

- 45. (New) The isolated polynucleotide of claim 44 wherein said nucleic acid sequence further comprises a heterologous nucleic acid sequence.
- 46. (New) The isolated polynucleotide of claim 45 wherein said heterologous nucleic acid sequence encodes a heterologous polypeptide.
- 47. (New) The isolated polynucleotide of claim 46 wherein said heterologous polypeptide is the Fc domain of immunoglobulin.
- 48. (New) An isolated polynucleotide comprising a polynucleotide encoding amino acids 2 to 665 of SEQ ID NO:109 comprising at least one amino acid substitution, wherein said amino acid substitution is located at one or more of the following amino acid residues: at amino acid residue 180; at amino acid residue 193; at amino acid residue 284; at amino acid residue 293; at amino acid residue 302; at amino acid residue 315; and at amino acid residue 584; wherein said polypeptide has phosphatase activity.
- 49. (New) The isolated polynucleotide of Claim 48 wherein the substitute amino acid at amino acid residue 180 is methionine.
- 50. (New) The isolated polynucleotide of Claim 48 wherein the substitute amino acid at amino acid residue 193 is asparagine.
- 51. (New) The isolated polynucleotide of Claim 48 wherein the substitute amino acid at amino acid residue 284 is serine.
- 52. (New) The isolated polynucleotide of Claim 48 wherein the substitute amino acid at amino acid residue 293 is alanine.
- 53. (New) The isolated polynucleotide of Claim 48 wherein the substitute amino acid at amino acid residue 302 is alanine.
- 54. The isolated polynucleotide of Claim 48 wherein the substitute amino acid at amino acid residue 315 is proline.
- 55. (New) The isolated polynucleotide of Claim 48 wherein the substitute amino acid at amino acid residue 584 is arginine.
- 56. (New) An isolated polynucleotide encoding a substrate trapping mutant of the RET31 polypeptide comprising amino acids 2 to 665 of SEQ ID NO:109 comprising at least one amino acid substitution within the region spanning amino acid residues 158 to 297 of SEQ ID NO:109, wherein said substrate trapping mutant polypeptide retains the ability to bind a RET31 substrate, wherein the ability of the RET31 substrate trapping mutant polypeptide to dephosphorylate said RET31 substrate

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is reduced relative to the native RET31 polypeptide, and wherein the at least one amino acid substitution comprises a conservative amino acid residue.